

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method for operation of a radar sensor in the near area for production of a detectable coverage field (5) for the identification of people and/or stationary objects by means of an antenna, ~~characterized in that~~ wherein the coverage field (5) can be electronically varied or adjusted.
2. (currently amended) A method for operation of a radar sensor in the near area for production of a detectable coverage field (5) for the identification of people and/or stationary objects by means of an antenna, ~~characterized in that~~ wherein a presence sensor (7) is equipped with an FMCW radar for distance measurement, and/or a radar sensor (R_1 to R_4) is equipped with at least one independent auxiliary antenna (10) for carrying out a self-test.
3. (currently amended) The method as claimed in claim 1 or 2, ~~characterized in that~~ wherein an evaluation process is carried out by evaluation of the frequency and phase of the individual reflected antenna signals.
4. (currently amended) The method as claimed in ~~at least one of claims 1 to 3,~~ claim 3, ~~characterized in that~~ wherein an emission angle α of the coverage field (5) is set, and in particular is finely set or is adjusted, via the phase shift of the antenna signals, in which case the sensor, in particular a

radar sensor, is arranged at right angles on any desired base, such as a wall or a door frame.

5. (currently amended) The method as claimed in claim 4, ~~characterized in that~~ wherein the coverage field (5) is set or aligned to cover an area or as a function of position, via the emission angle α as a function of an installation height (M_H), and/or the coverage field (5) is aligned such that it is inclined downwards and, if required, is varied by fine adjustment.

6. (currently amended) The method as claimed in ~~at least one of claims 1 to 5,~~ claim 1, wherein the radar sensor (R) is provided with a presence sensor (7).

7. (currently amended) The method as claimed in ~~at least one of claims 1 to 6,~~ claim 1, wherein energy for a test supply is taken from the radar sensor (R_1 to R_4) and/or from the presence sensor (7) by means of an autonomous auxiliary antenna (10), and the serviceability of the radar sensor (R_1 to R_4) and/or of the presence sensor (7) is checked in this way.

8. (currently amended) The method as claimed in claim 7, ~~characterized in that~~ wherein signals which can be evaluated and are used to evaluate the serviceability of the radar sensor (R) and/or of the presence sensor (7) are determined by drawing energy by means of the auxiliary antenna (10) or by loading the actual coverage field (5, 9) of the radar sensor (R) and/or of the presence sensor (7) at different frequencies or at the same frequencies.

9. (currently amended) The method as claimed in ~~at least one of claims 1 to 8, characterized in that~~ claim 8, wherein the direction, location and size or area of a coverage field (9) can be influenced via a phase shift, which can be set by means of a remote control, or evaluation of the frequency and phase between the output signal and the input signal.

10. (currently amended) A method for operation of a radar sensor in the near area for production of a detectable coverage field (5) for the identification of people and/or stationary objects by means of an antenna, ~~characterized in that~~ wherein stationary objects can be located and determined on the basis of their size and location by means of a presence sensor (7) using an FMCW radar for distance measurement in a coverage field (9), by determination of phase shifts and delay times of the reflected signals.

11. (currently amended) The method as claimed in claim 10, ~~characterized in that~~ wherein the size, the position and the height of the field or of the stationary object in the coverage field can be determined by determination of the delay times and by evaluation of the frequency and phase of the reflected signals.

12. (currently amended) The method as claimed in claim ~~10 or~~ 11, ~~characterized in that~~ wherein the distance to the object is measured in the stationary coverage field (9) by means of the different or changing delay times, and/or by evaluation of the frequency and phase of the reflected signals.

13. (currently amended) A radar sensor for production of a detectable coverage field (5, 9) for identification of people

and/or static objects in the near area by means of an antenna (3), ~~characterized in that~~ wherein the antenna (3) is in the form of a plurality of end-fire antennas, in particular slot antennas (3) or patch antennas.

14. (currently amended) The radar sensor as claimed in claim 13, ~~characterized in that~~ wherein a plurality of slot antennas (3) are arranged one above the other and/or alongside one another.

15. (currently amended) The radar sensor as claimed in claim ~~13~~ or 14, ~~characterized in that~~ wherein the slot antennas (3) are arranged on a base surface (2).

16. (currently amended) The radar sensor as claimed in claim 15, ~~characterized in that~~ wherein the arrangement of the slot antennas (3), comprising a plurality of slot antennas (3) which are arranged alongside one another and one above the other, are arranged on the base surface (2), and an emission angle α can be varied, can be set and/or can be adjusted over a distance A and/or B, which can be selected or can be changed in advance, between the individual slot antennas (3), if required also by phase-shifted driving of the individual antennas (3) with respect to one another.

17. (currently amended) The radar sensor as claimed in ~~at least one of claims 13 to 16~~, ~~characterized in that~~ claim 13, wherein the location and a size of the coverage field (5), in particular of the dynamic field (D), can be determined and varied by means of different driving of arrangements (4) of the slot antennas (3) and/or of the individual slot antennas (3) on the base surface (2), if required as a function of an installation height (M_H).

18. (currently amended) The radar sensor as claimed in ~~at least one of claims 13 to 17, characterized in that~~ claim 17, wherein an additional presence sensor (7) in the form of a radar sensor, in particular an FMCW radar sensor, is provided in one side surface (8).

19. (currently amended) The radar sensor as claimed in claim 18, ~~characterized in that~~ wherein the side surface (8) is at right angles or at an oblique angle to the base surface (2).

20. (currently amended) The radar sensor as claimed in ~~at least one of claims 13 to 19, characterized in that~~ claim 13, wherein at least one auxiliary antenna (10) is provided in the radar sensor (R_1 to R_4) and/or in the presence sensor (7), is loaded by drawing energy from the coverage field (5 and/or 9) of the radar sensor (R_1 to R_4) and/or of the presence sensor (7), thus allowing the serviceability of the radar sensor (R_1 to R_4) and/or of the presence sensor (7) to be tested.

21. (currently amended) The radar sensor as claimed in claim ~~19~~ or 20, characterized in that wherein the auxiliary antenna (10) is in the form of an autonomous auxiliary antenna (10) and is associated with the radar sensor (R_1 to R_4) and/or with the presence sensor (7) for serviceability checking purposes, and can be operated at the same or at different frequencies.

22. (currently amended) The radar sensor as claimed in ~~at least one of claims 15 to 21, characterized in that~~ claim 21, wherein electronics are arranged in the area of a rear face, which is opposite the base surface (2).

23. (currently amended) The radar sensor as claimed in ~~at least one of claims 13 to 22, characterized in that~~ claim 22, wherein the stationary sensor is used as a presence sensor (7) in the radar sensor (R_1 to R_4), or is inserted into it.

24. (currently amended) The radar sensor as claimed in ~~at least one of claims 13 to 23, characterized in that~~ claim 13, wherein a first arrangement (6.1) composed of slot antennas (3) is formed from at least two slot antennas (3) which are arranged one above the other, and a second arrangement (6.2) of slot antennas (3) is likewise formed from at least two slot antennas (3) which are arranged one above the other, and the first arrangement (6.1) and the second arrangement (6.2) of slot antennas (3) are at a distance from one another, alongside one another.

25. (currently amended) The radar sensor as claimed in claim 24, ~~characterized in that~~ wherein the signals of the first arrangement (6.1) of slot antennas (3) have superimposed on them the signals of the second arrangement (6.2) of slot antennas (3) in reflective wave fronts on two or more planes.

26. (currently amended) The radar sensor as claimed in ~~at least one of claims 18 to 25, characterized in that~~ claim 25, wherein electronics, the slot antennas (3) and at least one presence sensor (7) are combined in the form of a unit to form a radar sensor in a base body (1).

27. (currently amended) A radar sensor for production of a detectable coverage field (5, 9) for identification of people and/or static objects in the near area by means of an antenna (3), ~~characterized in that~~ wherein the antenna (3) is associated

with at least one transmitter and one receiver, and the size, the position and/or the height of an object can be determined within the preselected coverage field (9) by determination of different delay times and/or phase shifts of the received signals, with the transmitter or transmitters and receiver or receivers being locally at a distance from one another.

28. (currently amended) The radar sensor as claimed in claim 27, ~~characterized in that~~ wherein the position and illumination of a selectable coverage field (9) can be determined by means of corresponding angles and by means of any resultant phase shift between the transmitter or transmitters and the receiver or receivers.

29. (currently amended) The radar sensor as claimed in claim 27 or 28, ~~characterized in that~~ wherein the distance to, the location of and the height of any desired stationary object in the coverage field (9) can be measured by means of at least one transmitter and one receiver.

30. (currently amended) The radar sensor as claimed in ~~one of~~ ~~claims 27 to 29,~~ claim 29, wherein, if required, the limits of the length and width of the coverage field (3) can also be adjusted and set.